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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,480	06/06/2001	Nikil Jayant	062004-1770	7949

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EXAMINER

AN, SHAWN S

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 07/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

116

Office Action Summary

Application No.
09/875,480

Applicant(s)
Nikil Jayant et al.

Examiner
Shawn An

Art Unit
2613



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jun 6, 2001 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5-7 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ichige et al (5,710,590).

Regarding claim 1, Ichige et al discloses a method for improving communication of video data comprising steps of:

associating a plurality of video data with a dominant image (Fig. 1, 24; Fig. 4; Extracted Portion)

associating a plurality of video data with a background image (Fig. 1, 25a; Fig. 4; Non-Extracted portion);

allocating a first percentage of available data transmission capacity with the dominant image (128);

allocating a second first percentage of available data transmission capacity with the background image, such that the video data with the dominant image is transferred at a higher data transmission rate than the video data with the background image (abs.; col. 5, lines 19-55) as specified.

Regarding claim 2, it is inherently well known in the video compression art to increase/decrease the redundancy of a plurality of video data with the dominant image.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichige et al (5,710,590) in view of Iwamura (5,400,076).

Regarding claim 3, Ichige et al fails to disclose well known concept of concealing error of video data.

Iwamura et al teaches a conventional error concealment method, and a resulting defective picture being replaced with corresponding video data received at an earlier time (abs.) as specified.

Therefore, it would have been obvious to a person of ordinary skill in the art employing a method for improving communication of video data as taught by Ichige et al to incorporate the well known concept of error concealment so that an error associated with the background image of video data can be concealed by replacing data associated with at least one error with corresponding video data received at an earlier time in order to improve the performance of the object oriented coder, thus enhancing quality.

5. Claims 4-5, 8-9, 11-12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichige et al (5,710,590) in view of Yamamoto (4,437,125).

Regarding claims 4, 8, 11, and 15, Ichige et al discloses a system/method for communication of video information, comprising:

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a first object-oriented coder (27b) for dividing data into object macroblocks and background macroblocks, for allocating a higher data transmission rate to the object macroblock than to the background macroblocks (abs.; col. 5, lines 19-55) as specified.

Ichige et al fails to disclose assigning a higher number of error control overhead bits to the object macroblocks than to the background macroblocks.

Yamamoto teaches an error correction code adding additional overhead bits to each block of video data, thereby increasing the redundancy of the data (col. 8, lines 32-35).

Furthermore, since Ichige et al teaches the encoding means including a microcomputer or the like for analyzing information of the features (col. 3, lines 6-12), it is considered obvious for the microcomputer to comprise a computer program for communicating video information over a network performing the above steps.

Therefore, it would have been obvious to a person of ordinary skill in the art employing a system for communication of video data as taught by Ichige et al to incorporate the well known concept of adding additional overhead bits to each block of video data, as taught by Yamamoto so that the higher number of error control overhead bits can be assigned to the object macroblocks than to the background macroblocks, thereby increasing the redundancy of the data with the object macroblocks, in order to improve the performance of the object oriented coder, thus enhancing quality, and to allow more effective video messaging.

Regarding claims 5, 9, and 12, a processor and a memory are quite obvious features found in a conventional video coder that are typically used in performing video encoding/coding function..

6. Claims (6-7), 10, (13-14), and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichige et al and Yamamoto as applied to claims 4, 8, 11, and 15 above, respectively, and further in view of Kato (6,415,055 B1).

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Regarding claims 6, 10, 13, and 16, the combination of Ichige et al and Yamamoto fails to disclose a second object oriented coder that receives a location vector and at least one motion vector of an object macroblock in a previous frame, the location vector and the at least one motion vector of an object macroblock that is missing in a current frame, and replacing the object macroblock that is missing in the current frame with the object macroblock in the previous frame.

Kato teaches a location vector and at least one motion vector (Fig. 8, 6) of macroblock in a previous frame (7A), the location vector and the at least one motion vector (Fig. 8, 6) of an macroblock that is missing in a current frame (7B), and replacing the macroblock that is missing in the current frame with the macroblock in the previous frame (col. 4, lines 44-63).

Therefore, it would have been obvious to a person of ordinary skill in the art employing a system/method for communication of video data as taught by Ichige et al to incorporate the well known concept of locating motion vector of macroblock in a previous frame and locating motion vector of an macroblock that is missing in a current frame, and replacing the macroblock that is missing in the current frame with the macroblock in the previous frame as taught by Kato so that Ichige et al, by adopting Kato's encoder (use it as a second object coder) for locating the motion vector of object macroblock in a previous frame, and locating the motion vector of an object macroblock that is missing in a current frame, and replacing the macroblock that is missing in the current frame with the macroblock in the previous frame in order to further improve the performance of the object oriented coder, thus enhancing more quality, and to allow more effective video Messaging.

Regarding claims 7 and 14, by adopting Kato's encoder, it would have been quite obvious to utilize conventional processor and a memory that are typically used in performing video encoding/coding function.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.
 - A) Goldberg et al (4,356,507), Method and apparatus for digital television error correction without overhead bits.
 - B) Monastra et al (5,361,249), Fault tolerant switched communication system.
 - C) Sun et al (5,442,400), Error concealment apparatus for MPEG-like video data.
8. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn An whose telephone number (703) 305-0099 and schedule are Tuesday-Friday (Monday off).

SHAWN S. AN
PATENT EXAMINER



SSA

July 28, 2002